

WHAT IS CLAIMED IS:

1                    1.        A method of detecting a breast cancer cell in a biological sample from  
2 a patient, the method comprising  
3                    contacting the sample with a polynucleotide that selectively hybridizes to a  
4 nucleic acid sequence encoding a polypeptide having an amino acid sequence of SEQ ID  
5 NO:2, SEQ ID NO:4, or SEQ ID NO:6; and  
6                    detecting an increase in the level of the nucleic acid sequence, relative to  
7 normal, thereby detecting the presence of a breast cancer in the patient.

1                    2.        The method of claim 1, wherein the detecting step comprises detecting  
2 an mRNA that encodes the polypeptide.

1                    3.        The method of claim 2, wherein the mRNA is detected using an  
2 amplification reaction.

1                    4.        The method of claim 1, wherein the detecting step comprises detecting  
2 an increase in copy number of the nucleic acid that encodes the polypeptide.

1                    5.        The method of claim 1, wherein the patient is undergoing a therapeutic  
2 regimen to treat breast cancer.

1                    6.        The method of claim 1, wherein the patient is suspected of having  
2 breast cancer.

1                    7.        A method of detecting a breast cancer cell in a biological sample from  
2 a patient, the method comprising  
3                    detecting an increase in the level of a polypeptide having an amino acid  
4 sequence of SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:6, relative to normal, thereby  
5 detecting the presence of a breast cancer in the patient.

1                    8.        The method of claim 7, wherein the step of detecting an increase in the  
2 level of the polypeptide comprises performing an immunoassay.

1                    9.        A method of monitoring the efficacy of a therapeutic treatment of  
2 cancer, the method comprising the steps of:

3 (i) providing a biological sample from a patient undergoing the therapeutic  
4 treatment; and

5 (ii) detecting the level of: a polypeptide having an amino acid sequence of  
6 SEQ ID NO:2, SEQ ID NO:4, or SEQ ID NO:6, or of a nucleic acid that encodes the  
7 polypeptide, in the biological sample compared to a level in a biological sample from the  
8 patient prior to, or earlier in, the therapeutic treatment, thereby monitoring the efficacy of the  
9 therapy.

1 10. A method for identifying a compound that modulates a breast cancer-  
2 associated polypeptide, the method comprising the steps of:

3 (i) contacting the compound with a polypeptide of SEQ ID NO:2, SEQ ID  
4 NO:4, or SEQ ID NO:6; and

5 (ii) determining the functional effect of the compound upon the polypeptide.

1 11. A method of inhibiting proliferation of a breast cancer cell that  
2 overexpresses a polypeptide having an amino acid sequence of SEQ ID NO:2, SEQ ID NO:4,  
3 or SEQ ID NO:6, the method comprising the step of contacting the cancer cell with a  
4 therapeutically effective amount of an inhibitor of the polypeptide.

1 12. The method of claim 11, wherein the gene that encodes the polypeptide  
2 is increased in copy number in the breast cancer cell.

1 13. The method of claim 11, wherein the inhibitor is an antibody.

1 14. The method of claim 11, wherein the inhibitor is a small molecule.